

COMPUTER SHOPPER™

\$1 95
© 02927

NEW & USED BARGAINS

NEW EPSON QX-16

With Triple Operating Systems **MSDOS, CP/M-80 VALDOCS 2**



Inside:

- 1985 — The Battle Of The Operating Systems, I
- Predictions Of Things To Come By Stan Veit
- COMDEX 1984 Report
- PC Dialog-Speech-To-Data Recording System
- Communicating With The Real World
- Don Lancaster's Assembly Language Programming



Fifth Anniversary Edition

CALL **MM** NEED A PRINTER?
MidWest Micro-Peripherals
1-800-423-8215

**INSIDE
FRONT
COVER**

64K RAM \$3.29
 PROTO PC INC. (612) 644-4660 ORDER NOW SEE AD INDEX LOTS OF 100

EXTERNAL FLOPPY FOR YOUR Apple IIC PORTABLE **ONLY \$229.50!** 
 * Registered Trademark of Apple Computer Corporation

Disk Drive Services, Inc.
 See Ad Index

94¢ Diskettes
800-USA-DISK
 See ad index

THE WORLD'S LARGEST COMPUTER MAIL ORDER FIRM
CONROY-LA POINTE
 Formerly **Computer Exchange**
 See Ad Index

Don't Risk The Unknown
 Brand Name Diskettes at the Lowest Prices!
 Disk World! See Ad Index!

America's Mailorder Headquarters
Lyco Computer
 World's Leader in Sales and Service
 See Ad Index

ATARI

Applying The Atari

by Jeff Brenner

Hello 1985! 1984 brought some more rough times to Atari. First there was the realization that profits were gone for good. Then there was Atari's typical management confusion followed by massive layoffs and more layoffs. Later in the year, Jack Tramiel, the former president of Commodore who killed Atari in the first place, bought the company with its multi-million dollar debt from Warner Communications. In his efforts to consolidate Atari, more layoffs were made and Atari divisions around the country were shut down. Even Atari's famed toll-free telephone number was eliminated. Then we witnessed more layoffs and still more layoffs. By the end of the year, I would guess that Atari employed maybe five workers, a telephone operator and 150 lawyers.

Atari has told us that they'll be bringing out new 16-bit and 32-bit machines with incredibly low prices this year. Well, I can't even be 100% certain that Atari will still exist by the time you read this. Let's think positively, though, and hope that Atari will be able to change things around in 1985.

Last month we concluded with Program Perfect, a routine to prevent typing errors in programs entered from this column. This month we'll learn how to use Program Perfect and we'll test it on a program dedicated to the new year. Before we do that, let's take a look at the reader mail and some new books.

Reader Mail

There are two errors in the first ATARI disk directory program (August). First, the line, 6 IF FILE\$(5,16) = "FREE" THEN 8, blows up with an ERROR message! It should be IF FILE\$(5,8) = "FREE." Second, the DIM FILE\$(15) is too short and you lose the size of files in sector count. I would suggest DIM FILE\$(99).

Tom Snow

W. Lafayette, Indiana

You're absolutely right, and I apologize for the error. As

you suggest, line 6 could be changed to:

```
IF FILE$(5,8) = "FREE"
THEN 8
```

However, this will cause the program to stop if it happens to encounter a file name such as "AZFREEZE.BAS." The line should have read:

```
IF FILE$(5,16) = "FREE
SECTORS" THEN 8
```

The "SECTORS" was omitted.

You're also correct in stating that FILE\$ is not dimensioned at a large enough value. It should have been dimensioned at 17 for proper operation. Any larger value, such as 99, will work as well. Following is the complete corrected routine:

```
1 REM DIRECTORY
PROGRAM
2 DIM FILE$(17)
3 OPEN #1,6,0,"D:.*.*"
4 INPUT #1:FILE$
5 PRINT FILE$
6 IF FILE$(5,16) = "FREE
SECTORS" THEN 8
7 GOTO 4
8 CLOSE #1:END
```

Those of you with DOS III should change line 6 to:

```
6 IF FILE$(5,15) = "FREE
BLOCKS" THEN 8
```

since this DOS works with blocks instead of sectors.

I am using the Atari assembler-editor cartridge and want to combine two source files I have created separately. When I use ENTER, it loads in the second file, but erases the first. Any ideas?

A. Robinson
New York, New York

Yes. In BASIC, the ENTER command will merge a program with the program residing in memory. When using the assembler/editor, you must tack on a "M" for merging files. For example, to merge SOURCE.ASM with a source code already in memory, use:

ENTER #D:SOURCE.ASM,M for disk or ENTER #C:,M for cassette.

Books

I received two books for the

Atari from Little, Brown and Company (Boston, MA) which might interest you. The first is *Let's Learn BASIC—a kid's introduction to BASIC programming on ATARI home computers* by Ben Shneiderman (194 pages, softcover, \$8.95). Intended for eight through 14 year olds, adults interested in learning BASIC should find it equally helpful. The book discusses the PRINT command, the INPUT command, the FOR-NEXT loop, the IF-THEN statement and other BASIC commands in a relatively straightforward style. The random and integer functions are described, as well as strings and variable arrays. However, the Atari's graphics and sound, which the young appreciate the most, are not covered. Other versions of this book are available for IBM, Commodore 64, and Apple users.

Home Applications and Games for the ATARI Home Computers by Timothy P. Banse (134 pages, softcover, \$14.50) contains 31 short BASIC programs such as Checkbook Balancer, Home Inventory Log, Trip Cost Tabulator, and games such as Beowulf versus Grendel, and, of course, Ghost Town Vampire Girls. Some are useful, though others seem to be there to take up space. The book shows how each program works by explaining important lines, and listing the variables used. The author offers a disk of all the programs for \$9.95. If you lay out the \$14.50 for the book, I'd suggest spending another \$9.95 for the disk to save you the time of entering the programs.

Using Program Perfect

Now we'll learn how to use Program Perfect, which was listed here last month. If you're new to Computer Shopper and did not get last month's issue, send me a self addressed stamped envelope for a listing of this program.

If you haven't entered last month's program yet, why not? If you have entered it, check it over a few times and make sure there are no mistakes. A mistake in a program which checks other programs is bad news!

Since last month, I've made a few minor improvements to the program, so change lines 30000, 30070, 30020, 30250 and 30260 to the following:

```
30000 CLR:CLOSE #1:CLOSE
#2:N1 = 1:N2 = N1 + N1:N84 = 84:N85 = N84 + N1:N39
= 39:N65 = 65
```

```
30070 POKE 702,64:POKE694,0:GET #N2,N:IF N = 126
AND I>N1 THEN PRINTCHR$(30);"-";CHR$(30);:I =
I - N1:GOTO 30070
```

```
30220 POSITION N2,10:PRINTCHR$(156);LN$(5,LEN
(LN$)):PRINT :PRINT :PRINT CHR$(157);"CONT"
```

```
30250 T = NL:POSITION N2,10:INPUT #N1;LN$:FOR
I = N1 TO LEN(LN$):T = T + ASC (LN$(I,I)) 30260 IF T
650 THEN T = T - 650
```

You must make these changes for the program to be compatible with the codes we'll be entering. Note that in effect, CLR:CLOSE #1:CLOSE #2 is added to line 30000 while N676 = 676 is deleted, POKE 702,64:POKE 694,0: is added to line 30070, CHR\$(156); and a PRINT : are added to line 30220, T = NO is changed to T = NL in line 30250, and the two N676s in line 30260 are changed to 650s.

Now Program Perfect should be ready to use, and we'll first test it with a short,

four-line program. Before you do anything, though, SAVE it to cassette or diskette. Since Program Perfect erases itself from memory after it helps you

enter a program, it is important that you save it before you use it.

Following is the program we will enter with Program Perfect:

```
CTJ 10 REM TEST OF PRO-
GRAM PERFECT
LAJ 20 PRINT "THIS IS A
TEST"
WMJ 30 GOTO 20
OJZ 40 END
```

Continued on page 122



wabash DISKETTES

5 1/4"

1 box 2 boxes 3 boxes

Single Side	14.00	12.00 bx.	11.00 bx.
Single Den.			

Single Side	15.00	14.00 bx.	13.00 bx.
Double Den.			

Double Side	19.00	18.00 bx.	17.00 bx.
Double Den.			

DS DS	17.00	16.00 ea.	12.00 10 pks.
BULK	1 pack	2 pks.	

96 TPI →	SS DD → 17.00 bx.	DS DD → 34.00 bx.	96 TPI ←
----------	-------------------	-------------------	----------

64K Upgrade: 4164	150ns → 3.50 ea.	2716 → 3.20 ea.
	200ns → 3.40 ea.	2732 → 3.90 ea.

6116	150ns → 4.95 ea.	2764 → 6.80 ea.
	200ns → 4.10 ea.	27128 → 15.00 ea.

Concord Computer Products
2910 B'E. La Palma
Anaheim, Ca. 92806
(714) 632-6790
(800) 435-0907
Add \$2 Shipping & Handling
Visa & MasterCard Accepted

Brenner

Continued from page 119

Note the three letters to the left of each line number. This is the code used by Program Perfect to check the line for errors, and to determine the next line of the program for its automatic

line numbering feature.

When you RUN Program Perfect, you are asked to enter the starting line. This is the first line of the program you are entering. Since the first line of our demonstration program is ten, enter 10 for this prompt. The line below will now show

the following:

- - - 10

The three hyphens preceding the 10 are for the three-letter code. Type the code for line 10, CTJ. The display will now show:

CTJ 10 ■

The cursor will have moved past the line number to allow you to enter the line. Type in the remainder of line ten. The display should show:

CTJ 10 REM TEST OF PROGRAM PERFECT ■

Press RETURN. Program Perfect will perform a few screen manipulations below the line you have entered as it checks the line for errors and places it in the computer's memory as a real program line. You'll get a buzz with an "ERROR - TRY AGAIN" message if you've made a syntax error, or if the line does not check against the code. The line doesn't necessarily have to be in error; a mistake in the three-letter code will also trigger the error message. You'll

have to re-enter the three-letter code, but the rest of the line will remain intact so you may correct it using the cursor control keys. To erase the entire line and the code, press SHIFT-CLEAR. Program Perfect will not allow you to move the cursor out of its three-line entry area.

If the line is entered correctly, the program will automatically display the next line number of the program. Enter the codes and program lines for each line number that appears until the entire program is entered.

Program Perfect allows you to use all abbreviations, such as GR. for GRAPHICS and G. for GOTO. However, do not use ? for PRINT or vice versa as the computer treats these as two different commands. The same goes for GOTO and GO TO. Use PR. as an abbreviation for PRINT, and stick to the one-word GOTO, as this is the only form that will appear in the programs in this column.

You do not have to follow the exact spacing of the program line unless the spacing is within quotes. For example:

10 PRINT "HELLO":GOTO 10

can be entered as:

10 PRINT "HELLO": GOTO 10

and you won't get an error. But if you try to enter the following:

10 PRINT " HELLO ": GOTO 10

you'll get an error message.

If you like to leave out all spaces (which, incidentally, does not save you any memory

on the Atari) you could enter:

10PRINT"HELLO":GOTO10

and it will be accepted. But be careful of lines such as:

10IFA = BTHENGOTO10

as the computer will interpret BTHENGOTO10 as a single variable and will give you an error. In this case, you must put a space after the variable:

10IFA = B THENGOTO10

This does not only apply when you are using Program Perfect, but whenever you are using Atari BASIC.

After you enter the last line of the program (which has a three-letter code ending with a "Z"), Program Perfect will print "END OF PROGRAM - STAND BY." It will then take about five seconds while it erases itself from memory and leaves you only with the lines you have entered. You can then list, save or run your program.

What if you don't enter the whole program in one sitting? You can press BREAK and SAVE what you've already typed. Since Program Perfect is in memory, you will be saving it as well as the lines of the program you have entered. When you are ready to enter more of the program, simply LOAD it back in and type GOTO 30000 (the beginning line of Program Perfect). Then enter the line number at which you left off for the "Starting number:" prompt and enter the rest of the program.

If you tried to enter the four-line sample program but couldn't, you've probably

Continued on page 126

Seduction... more than a game!



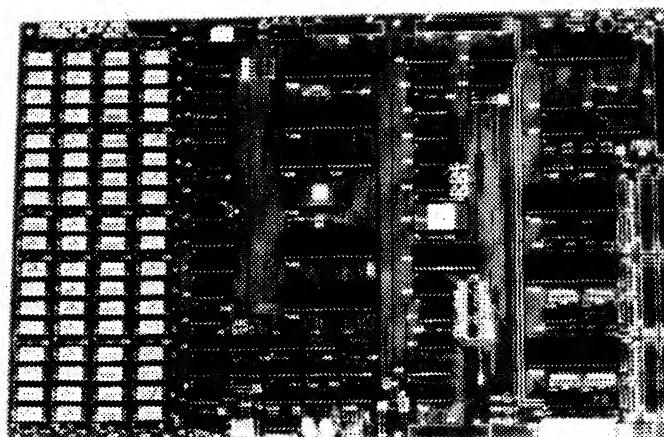
ATARI 400/800/1200 - 48K 1 DRIVE - REQUIRED
TRS-80 MODEL 1 - 48K 2 DRIVE - TRSDOS 2.3
TRS-80 MODEL III - 48K 1 DRIVE - TRSDOS 1.3
TRS-80 MODEL 4P - 48K 1 DRIVE - TRSDOS 1.3
SEDUCTION/1 AND SEDUCTION/2 * - \$49.95
SEDUCTION/2 MODEL III/4 AND 4P - \$39.95
SEDUCTION/2 ATARI 400/800/1200 - \$34.95
SEDUCTION/1 MODEL 1/III/4 AND 4P - \$29.95
MODELS III/4 AND 4P*
XX-RATED versions - Order #X6501

ADULT VIDEO GAMES™
7325 1/2 Reseda Blvd.
Suite 637, Dept. 8
Reseda, Ca. 91335

X-RATED

THE BIGGEST & BEST SBC

The Mega Super Computer



The Maxi Computer System on Board

- ★ 512K of D-Ram with Parity-Configurable as 8 Banks of 64K or as a high speed Electronic Disk
- ★ Dual Density 1 or 2 sided Floppy Disk Controller (WD2797)-8" or 5" simultaneously - supports 3 drives for 4 MB's of DATA
- ★ Hard Disk Interface, ST506, SASI or Priam
- CP/M 2.2 System 512K, RAM Disk (430K)
- CP/M 3.0 System 512K Bank
- MP/M 2.1 System 384K auto-boot for console (16 users)
- Turbodos 1.3, 128K (see Microsystem, Aug. 84)

SPECIAL HALLOWEEN PRICES

Total price for above systems \$1099 — includes operating system and board
Hard disk 20 megabyte package for all systems above \$1995.

All this on a multi layer card - with accurate documentation.
Bare Board - with documentation & Firmware (PAL) — \$200
Users Manual — \$25

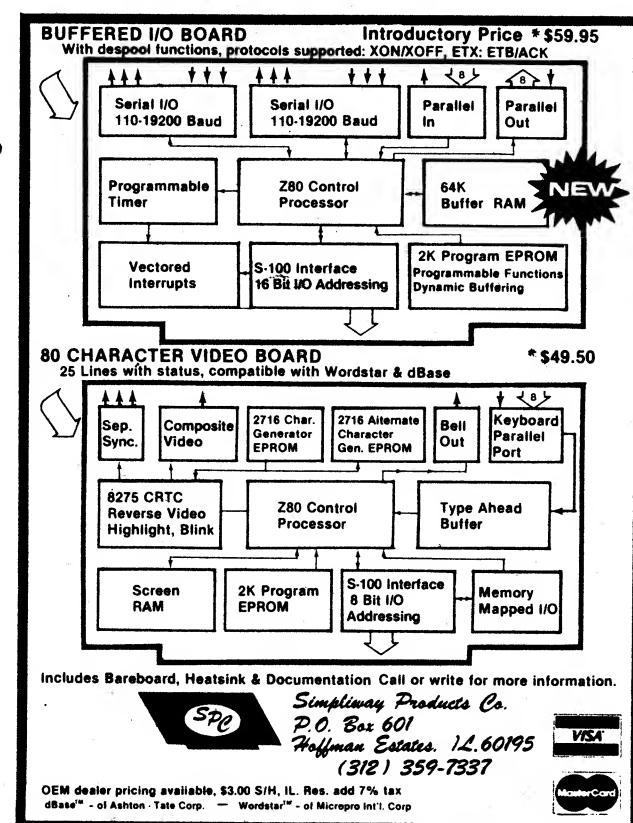
Wave soldered assembled board without IC's — \$375



MEGACO.



2248 S. Park Street, Madison, WI 53713, (608) 255-7400



DeVore
Continued from page 126

The most difficult problem that occurs while at the ranch is killing an enormous rat that thinks I would be tasty. To avoid this it is necessary to coax an owl out of a tree. If that works, the owl will eat the rat rather than the rat eating me. What a relief to see it fly across the screen! Once the rat is no longer a problem I take the shovel. Without that, I might not find the only way to get off of Southfork.

The game has a SAVE feature which is advisable to use before you enter a dangerous situation. If you don't and are killed, you have to start over at the very beginning. Saving your journey can make the completion of the adventure less repetitive as you can load it back in and start at that point.

Leaving Southfork, I find myself on a plane headed for South America. The sound of the jet engines seem to say "hurry, hurry," but after one jump from the plane without

the benefit of a parachute, I learned to take more time.

As I travel down the jungle paths, I find that I am glad to have brought all of the items I found at the ranch. Each step seems to bring another obstacle to overcome. These include: monkeys, jaguars, anacondas, hippos (HIPPOS?), curtains, darkness, cannibals, spiders and of course J.R. It seems that he doesn't want me to find the map.

Some clues bring obvious solutions to mind, but other times the answers are learned slowly and quite often the consequences are fatal if you guess

wrong. It often takes more thought to solve most of the problems due to the unorthodox solutions. But the magic words required are simple, especially in situations when you are not sure of what to do to whom. Conquering an obstacle just adds to the excitement of anticipating the next.

One inconsistency is the fact that hippos, elephants and lions do not live in South America. However, when the cannibals "request" that you perform a "feat of courage," that fact never seems to come to mind.

The graphics and playability

are excellent. This is a game for people of all ages. It is one of the few that seem to have an appeal for the ladies as well as the men. I loaned the program to a friend of mine to get his reaction to it, his wife and a friend spent many hours in solving it. Their daughter, who is seven, learned to play it and was quite enthralled. Playing this adventure will stretch your vocabulary as you try to find the correct synonym to unlock the mystery of each challenge. This is an adventure that the entire family can take part in solving and I highly recommend it.

Own your own computer supply business. DISK WORLD! will show you how.

You probably know who DISK WORLD! is: our ads are scattered throughout this and every other major computer magazine.

We're one of the largest computer supply marketers in the country.

And we want you!

But, no matter how much we advertise, we still can't reach every computer user...but you can.

We're looking for people who want to run their own part- or full-time computer supply business.

You'll have our help.

You won't be alone.

You'll have the accumulated experience, buying power and merchandising skills of DISK WORLD! working with you. (And, if you don't think that's important, just remember this: eighteen months ago DISK WORLD! didn't exist...and now we're one of the largest distributors in the nation.)

\$24.95 gets you started.

We'll send you a complete business plan that tells you everything you need to know.

It'll cost you \$24.95 + \$3.00 shipping.

But it's risk-free. Read it for fifteen (15) days and if you decide this isn't for you, send it back. We'll refund your money.

If it is for you, you'll know what to do next.

DISK WORLD!
Suite 4806
30 East Huron Street
Chicago, Illinois 60611

YES, I'm interested in the details of the DISK WORLD! independent resellers program. Please send me my manual.

I understand that if I don't like it, I can return it within 15 days for a full refund.

My check or money order for \$27.95 is enclosed.

Charge my VISA or MASTERCARD

Exp. _____/_____

Signature: _____

PLEASE PRINT LEGIBLY!

Name: _____

Address: _____

City: _____ State: _____ Zip: _____

Phone: (_____) _____

Datasoft® Introduces Home Word Processing Letter Wizard™

Whether it's writing a shopping list, a letter to your child's teacher, planning a cottage business, or writing the next great American novel, easy-to-learn and use word processing can make the difference.

Datasoft, Inc., a leading software manufacturer, is taking the extra-simplicity approach to home word processing software with the introduction of "absolutely the simplest, most easy-to-use" word processing program specifically

designed for the home user, called Letter Wizard.

Most home-users are intimidated by the complexity of existing software. The easy-to-perform creating, editing, and printing functions of this software program make the reorganizing, inserting, and deleting of information a simple task. Any family member as young as early teens can, with Letter Wizard, easily perform standard word processing functions as well as operate the

easy-to-use format feature to print documents exactly as shown on the clear, uncluttered screen.

Additional benefits include Letter Wizard's unique spelling checker that checks the spelling of more than 33,000 words automatically, and has the ability to create an endless number of user-defined dictionaries.

Included as an available option is the data base form letter function that allows the user to create personalized form letters. The keyboard-driven system enables the computer to respond quickly and cleanly to the user's pace because functions can be selected at the keyboard, thus eliminating the necessity to refer again to the menu for function selection.

Designed to satisfy the growing home word processing needs and suited to today's family budget, Letter Wizard with the spelling checker sells for a suggested retail price of \$74.95 and is available on Atari, Apple, and Commodore-64.

For more information, contact Datasoft, Inc., 1980 Nordhoff Place, Chatsworth, CA 91311.

Mention that you read it in Computer Shopper.

THE BUYING SERVICE

Business Software • Hardware • Peripherals
No registration or fee • 2000 products available

ABATI (DANA) LQ-20P	365.00	ACCT PARTNER (STAR)	257.00
C. ITOH 8510AP	337.00	BPI GEN ACCT	375.00
MANN TALLY SPIRIT	275.00	EASYWRITER II	195.00
OKIDATA 82A	297.00	INFOSTAR	239.00
OKIDATA 92P	419.00	IUS ACCT MODULES	315.00
PANASONIC KXP 1090	255.00	MULTIMATE	259.00
PANASONIC KXP 1091	305.00	OPEN SYS ACCT MODULES	389.00
SILVER REED EXP 400	297.00	VOLKSWRITER DELUXE	170.00
TOSHIBA 1340	755.00	WORDSTAR	239.00
TOSHIBA 1351	1265.00	WORDSTAR PROF	345.00

ANCHOR MK XII	245.00	GREAT LAKES 10MB HD	1120.00
HAYES 1200	469.00	TALLGRASS 12MByte HD	2599.00
HAYES 1200B	395.00	TANDON 10MByte HD	955.00
PROMETHEUS PRO 1200	339.00	TECMAR 5.5 MB HD	1350.00

AMDEK COLOR I PLUS	265.00	AST RESEARCH SIXPAK +	259.00
AMDEK COLOR II PLUS	405.00	HERCULES GRAPHICS CARD	325.00
TAXAN RGB VISION I	285.00	MS PREM SOFTCARD II	275.00
TAXAN RGB VISION III	389.00	PCP 128K RAMCARD/AP-DISK	209.00
TAXAN RGB VISION 420	415.00	STB R10 PLUS	269.00

CORONA PC-22/PPC-22	2360K dr, 256K RAM	1949.00
CORONA PCHD-2/PPCXT	1360K dr, 256K RAM, 10 MByte HD	2995.00
CORONA PB-400	2360K dr, 512K RAM, 10 MByte HD	3699.00

(ALL OF THE ABOVE INCLUDES MS-DOS, GW-BASIC, MULTIMATE, PC TUTOR, AND GREEN OR AMBER MONITOR, PB-400 GREEN ONLY)

COMPUPRO-SYSTEM 816 SERIES	WRITE OR CALL
EAGLE - 1620, 1630, 1640, SPIRIT XL	WRITE OR CALL
NEC APC - HO1, HO2, HO3, HO4	WRITE OR CALL
TELEVIDEO - TPC1, TPC2, 803, 804, 806, 816, 1605	WRITE OR CALL

The SOFTWARE LINESM

9 AM-5 PM (EST)
MON.-THURS.
9 AM-1 PM FRI.
P.O. Box 891
Dunedin, FL
Zip 34296-0891

813-734-2844
(Or write us for price quotes)

Prices subject to change without notice

Shipping via
UPS or USPS.
Terms: Cashier's
check, certified
check, or M.O.
C.O.D. 20% down

Indus FT Drive 3 free programs	\$299
Percom 176K Drive/Printer port	\$299
Atari 1050 127K Disk Drive	\$179
Happy 1050 176K Disk Drive	\$359
Happy 810/1050 Enhancement	\$179
Atari 850 Interface	\$119
Atari 800XL 64K Computer	\$129
Printers, Modems, Software, Etc.	CALL
Call or write for price list	
Add 2% shipping. Excess Refunded	
Add 4% VISA/MC. Send check/MO to:	
DYSCOM COMPUTERS	
162 Piley's, Chillicothe, OH 45601	
614-772-6956	